# REMARKS

Our present invention resides in a relatively crowded field as can be seen from the cited prior art.

Our inventors recognized problems that exist from a contrast phenomena where an optical illusion can occur. Associated colors in an image display can alter a perception so that one color is processed by the user's brain but shows differently from its actual color. This phenomena can occur when a person looks at one color for a period of time and then looks at another color and can also occur relative to any contrast in area, wherein colors can appear actually deeper in intensity when the area of the image possessing the color increases in size.
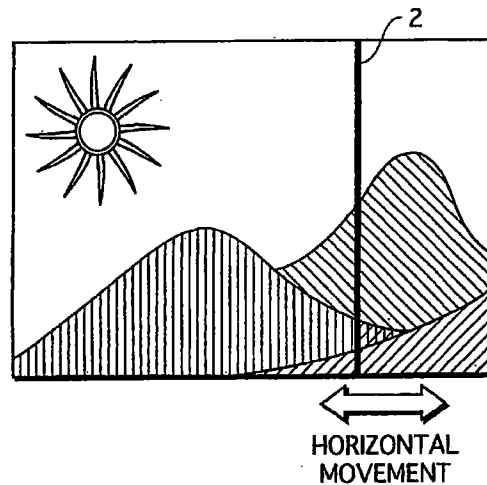
The present invention enables a determining unit to set a boundary position for dividing a screen into a first area and a second area, upon receiving a user input showing a particular position on the screen, which can correspond to a latch in a switch control unit to hold a coordinate value of the boundary position and thereby determine the position as separated by a given number of pixels from a pixel position inputted by the user as the boundary position.

[0028] According to this structure, it is possible to realize a structure which splits a display into two areas and specifies signals for each area through a simple structure which uses a latch storing the coordinate value of a boundary position and a counter which counts the input clocks of image signals.

[0029] Also, the determining unit may determine the boundary position based on a user input, and may store the pixel position pertaining to the determined boundary position.
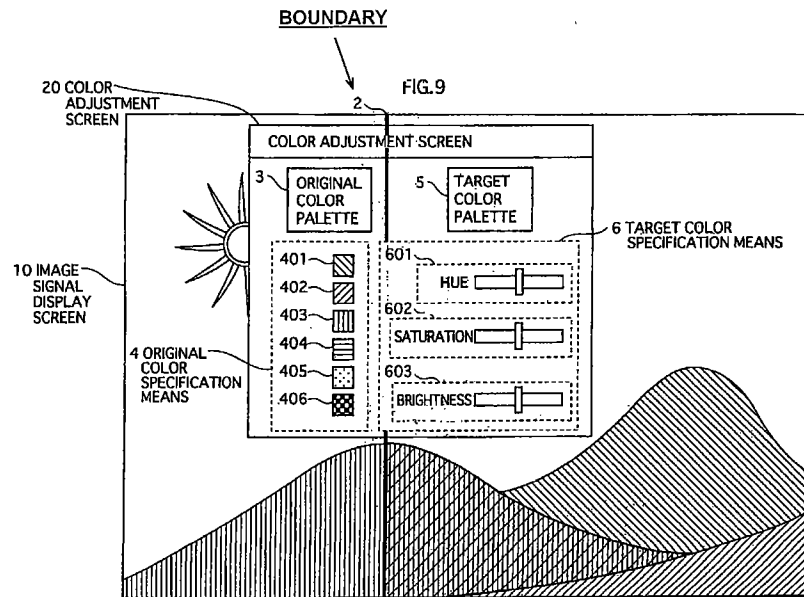
Thus, as defined in Paragraph 0065, a user can define the boundary lines to divide the image as follows:

FIG.3A



HORIZONTAL
MOVEMENT

[0091] When coordinates of a boundary position for a two-way split display are indicated by the main microcontroller 70, the switch control unit 56 stores those coordinates and outputs switch signals appropriately to the output selector 55 to cause a switch.

An example of an adjustment screen that can be utilized to implement a color adjustment

image while maintaining a desired relative relationship to the original color specification, is

shown in Figure 9:

BOUNDARY

FIG.9

20 COLOR
ADJUSTMENT
SCREEN

2

COLOR ADJUSTMENT SCREEN

3 ORIGINAL
COLOR
PALETTE

5 TARGET
COLOR
PALETTE

6 TARGET COLOR
SPECIFICATION MEANS

10 IMAGE
SIGNAL
DISPLAY
SCREEN

401
402
403
404
405
406

601
HUE
602
SATURATION
603
BRIGHTNESS

4 ORIGINAL
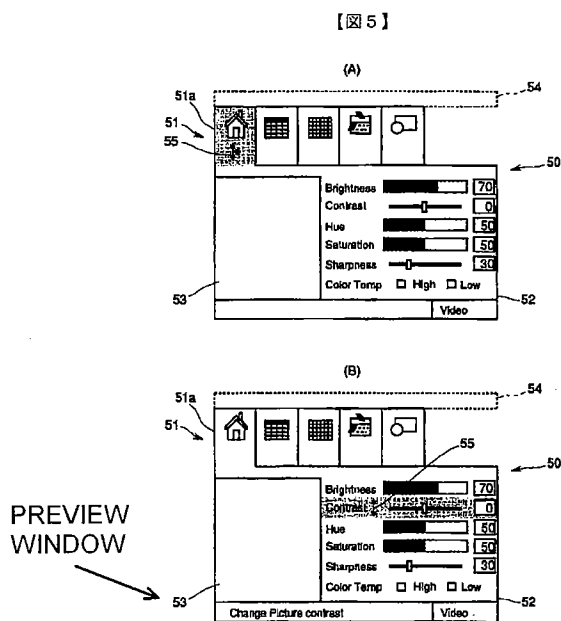COLOR
SPECIFICATION
MEANS

The Office Action raised a 35 U.S.C. §112 issue of indefiniteness as to Claim 1, which is believed mooted by our amendments.

The Office Action rejected Claims 5-7 over a combination of *Matsubara et al.* (Japanese Laid-Open Patent Publication 2002-152554), *Gu et al.* (U.S. Patent No. 6,097,853), *Venable* (U.S. Patent No. 5,861,871), *Mizutani* (U.S. Patent No. 5,739,815), when further taken in view of *Morimoto et al.* (U.S. Patent Publication 2004/0101206).

As can be determined from the amended claims, applicant has amended Claim 1 to include the feature of Claim 7 and accordingly, applicant will address the rejection of Claim 7.

The *Matsubara et al.* Japanese publication specifically taught a control menu window 50 that permitted an operator to move a menu for the purpose of defining a small portion of the overall image in a sub-window 53. This is illustrated in the drawings of Figures 4A and 4B, and can be seen in Figures 5A and 5B, as follows:

【図5】

(A)



(B)

PREVIEW
WINDOW



· The user can place a cursor 55 to select an adjustment of a portion of the image quality

adjustment as shown in the <u>preview window 53</u>, which is described as follows:

[0014] Here, the menu window picture 50 is explained with reference to <u>drawing 5</u>. The menu [the menu window picture 50] 50 may only be written henceforth. The menu consists of two or more pages, and each page consists of the setting area 52 which finds out and comes out and sets the parameter corresponding to a certain tag area 51 and its page. The figure (A) shows the state where the tag area 51a of the image quality regulation page is chosen. The tag area 51a is stained by the color different from other tag area, and he is trying to be conspicuous in it in this state. The figure (B) shows the state where the 2nd parameter contrast is chosen from the top among the setting area of the page of image quality regulation. The parameter operation explanation (Change Picture Contrast) which the parameter chosen is stained by the color different from other parameters, and it is made conspicuous [explanation], and is chosen as the lowest column of the menu 50 is displayed. Video currently displayed on the right is n input source name. If one [which cursor button], the arrow 55 of the movable direction of whether to be able to move to other area (parameter) is displayed on the column of the parameter chosen. The figure shows the movable thing to a top or the bottom. When the page of image quality regulation is chosen, the preview

window 53 which displays the image adjusted according to regulation of image quality is set to the left part of the menu 50.
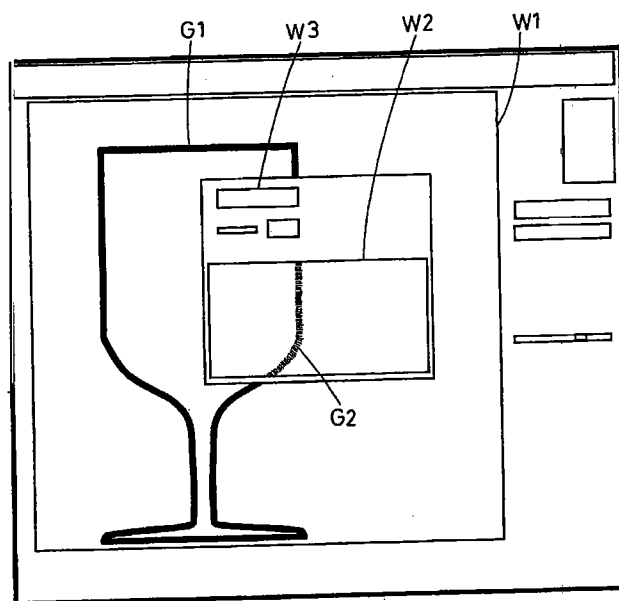
As can be appreciated, a segment of the overall image can be modified and saved as defined in a frame buffer by the boundaries of the sub-window 53. The sub-window is moved along with the rest of the menu 50, to various locations across the image screen 20. The Office Action acknowledged that the subject matter of Claim 7 could not be taught by *Matsubara et al.* alone.

The Office Action, however, directed applicant's attention to the *Morimoto et al.* U.S. Patent Publication, which purportedly was an improvement over prior art photo-retouching software that permitted an application of a special effect on an original image, such as blur processing and extract processing, that could be subject to a distortion based on a zoom problem of enlarging a specific part of the original image, and could address a problem associated with different locations of the preview image display window and the original image display window.

Thus, *Morimoto et al.* purportedly provided a menu that could make it easier to check the effect produced by a special effect processing by displaying a zoom image at the same zoom and at the same location as the original image, see Paragraph [0013] and Figure 3, as follows:

> [0013] Accordingly, the present invention has been made, with the aim to make it easier to check the effect produced by the special effect processing by displaying the preview image at the same zoom and at the same location as the original image.

F i g . 3



Comparing the *Matsubara et al.* reference with the *Morimoto et al.* reference, it can be seen that a similar mechanism for processing images is disclosed by both references. Neither of the references, however, teach the features of the present invention nor facilitate the manner of dealing with a split screen as defined by the first and second display units of Claim 1.

Additionally, *Morimoto et al.* merely recites that a desired portion of the original image displayed on the age display window (W1) can be displayed on the preview display window (W2) when the user operates functions via the input means such as the keyboard 61 and the mouse 62.

That is, *Morimoto et al.* neither recites nor suggests the determining unit that "receives a user input, which is information showing a position on the screen, and determines a position

separated by a given number of pixels from a pixel position pertaining to the position shown by the information to be the boundary position."

The *Gu et al.* patent purportedly adopts a blue screen system, which is utilized in television production, to isolate a television weatherman from a background image overlaid, for example, as a weather map. This is known as a key well concept as mentioned in Column 3, Line 30 and Column 4, Line 5.

Accordingly, a region of interest in a key frame image is isolated and vectorized to obtain a user defined window from a target on a video monitor. A work station monitor, as shown in Figure 1, can then isolate on the targeted image as it is presented in a small view/edit window 46. This approach permits a keystone mode that allows capture, editing and manipulation of a key image in a vector editing mode which allows manipulation of the window derived from the key image. Subsequently, the user in a work station monitor edits the image.

One of the features in the *Gu et al.* reference is the capacity to morph the image in subsequent frames as the image changes in size due to perspective or rotation of the image to present different views. As can be appreciated, however, the *Gu et al.* reference does not teach a determining unit as defined in our current amended Claim 1, and does not resolve the deficiencies of the relied upon *Morimoto et al.* disclosure.

The *Venable* reference was cited to teach a color lookup table system, which permits a user input to modify a pixel value. The *Venable* reference, however, does not resolve the deficiencies of either the *Morimoto et al.* reference or the *Matsubara et al.* reference.

Finally, the *Mizutani* reference was relied upon to teach a capability of dividing a display screen into a plurality of small screen areas or subscreen areas, while avoiding the necessity to interrupt the processing of the application program by performing a polling to determine each of

the small screen areas. The *Mizutani* solution to this perceived prior art problem is to employ a palette writing section which is capable of updating display color information from a corresponding small screen area into the palette. The head position of the small screen areas are detected by an area detecting section and when an interrupt is generated, the palette writing section is then operated so that color information corresponding to a specific small screen area, whose head position was detected, can be written into this specialized palette.

Again, this teaching to a person of ordinary skill in the field does not resolve the deficiencies of the other references nor specifically, the *Morimoto et al.* disclosure.

The amended Claim 1 includes a determining unit that can freely set a boundary position between an original image and a color-adjusted image so that these images can be easily compared. Furthermore, a position of the image having a color to be compared can be separated by a given number of pixels from the boundary position. That is, a comparison of colors can be facilitated. Also, any adverse effect of the boundary line can be reduced by separating the image from the boundary line (see recitations in Paragraphs 0112 and 0120 of the publication of the present application (US 2006/0176311A1)). The adversary effect of the boundary line is caused because the boundary line is possibly perceived as one of the images and adversely affects the perception of the colors in the whole image (color contrast phenomena).

Thus, with our above-stated determining unit, that is not taught by any of the cited references, the amended Claim 1 provides an advantageous effect as described and is not obvious over any of the cited documents.
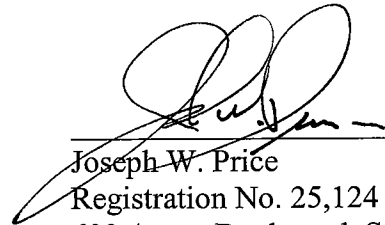
Since each of Claims 2, 3, 5 and 8 to 10 include all of the features of the amended Claim 1, these claims are also not obvious over any of the cited documents.

Applicant respectfully submits that the present application is now in condition for allowance and an early notification of the same is requested.

If the Examiner believes a further telephone conference would assist in the prosecution, the undersigned attorney can be contacted at the listed phone number.

Very truly yours,

**SNELL & WILMER L.L.P.**

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